Nuclear Power and the International Uranium Market

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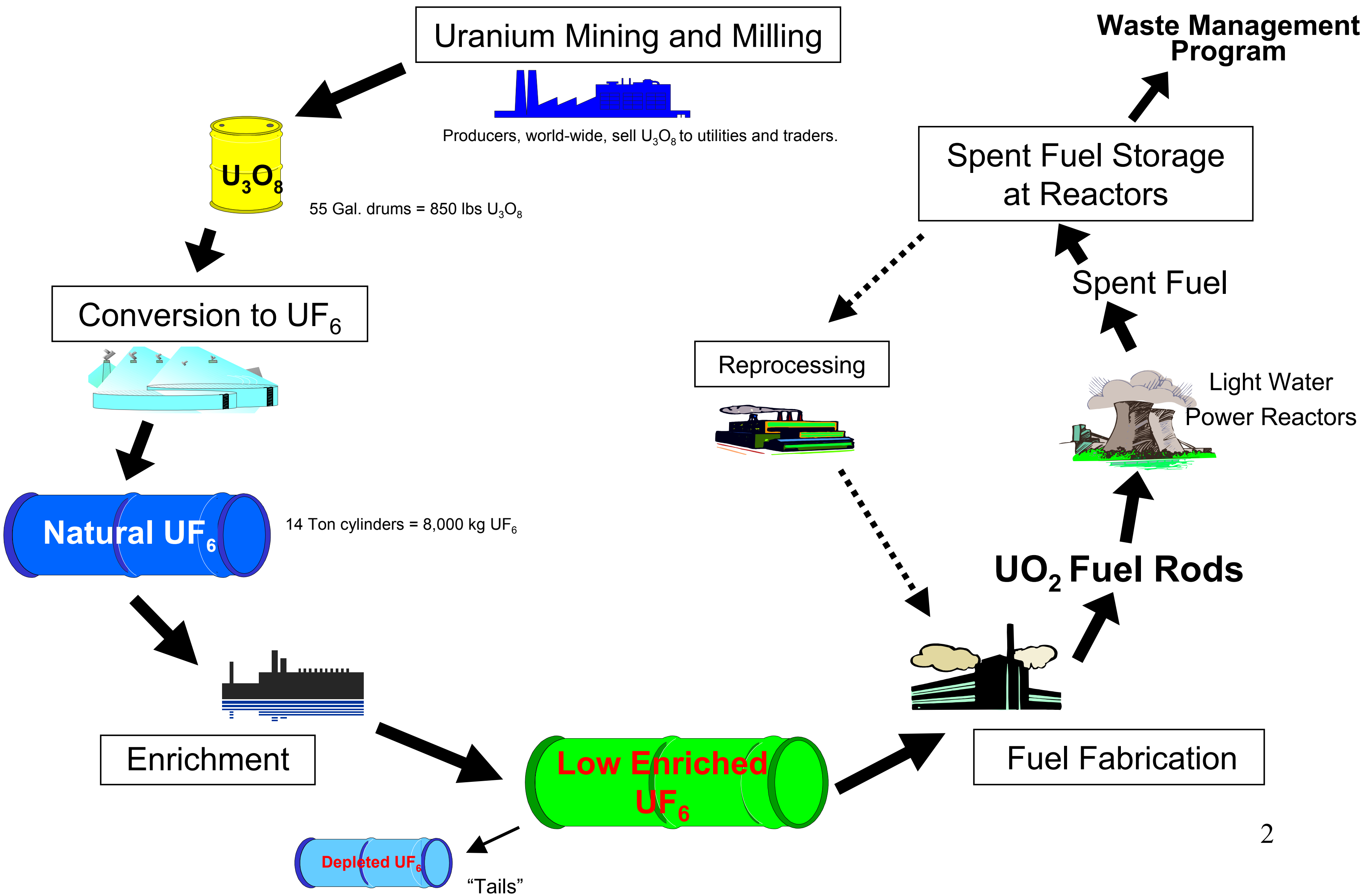
The Nuclear Fuel Cycle



World Nuclear Generating Capacity

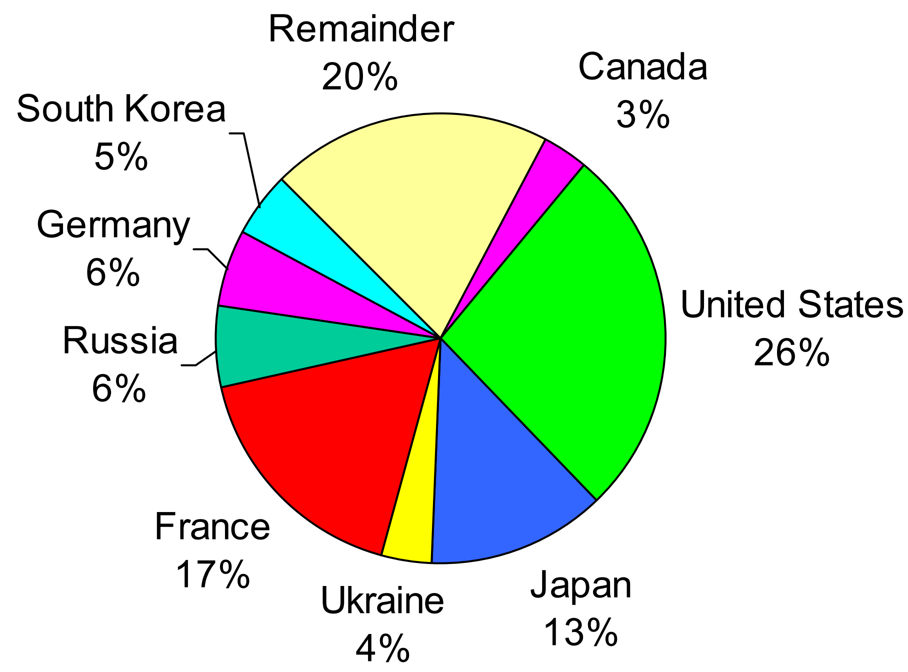
World Nuclear Capacity
(March 2006)

441 Reactors

368,496 Mwe

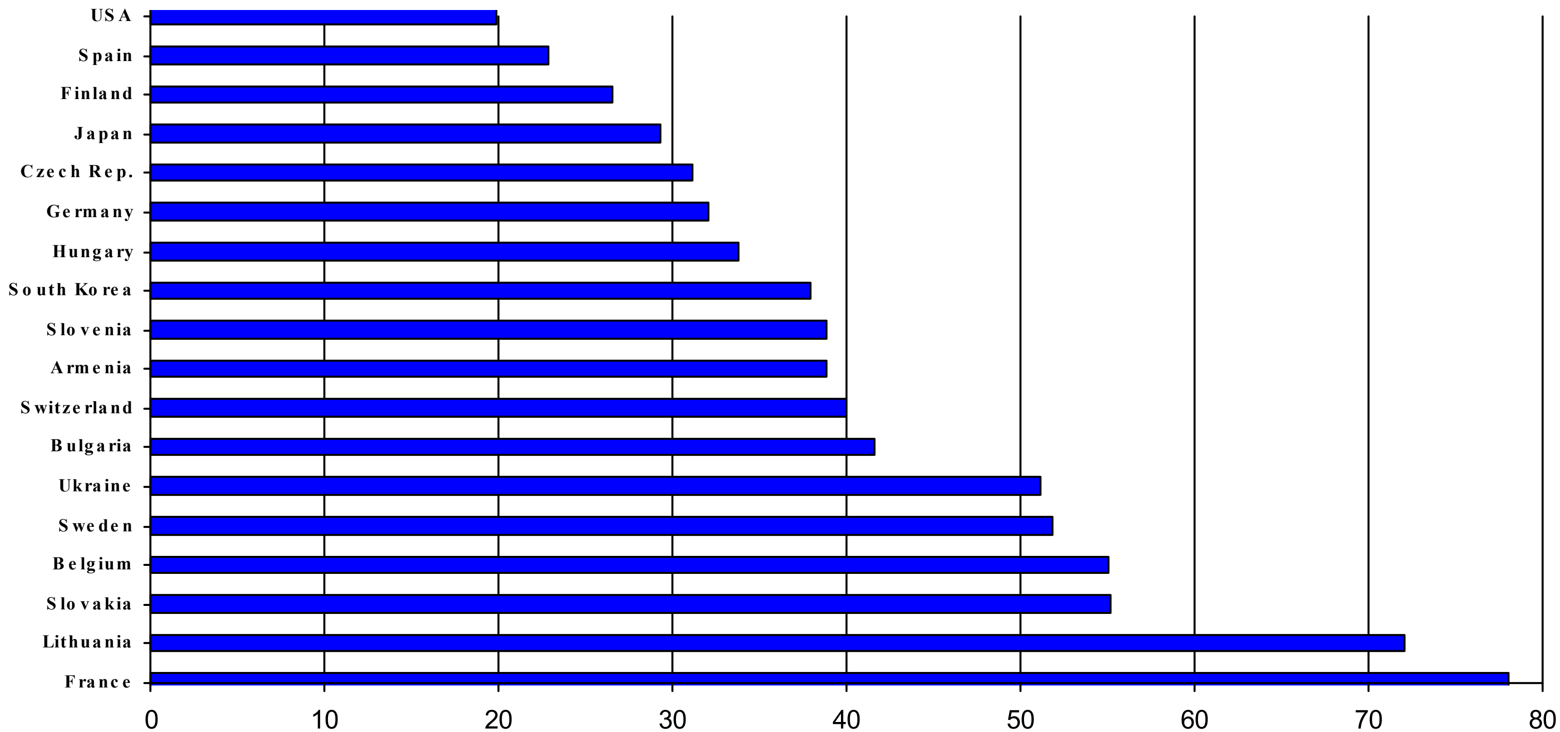
31 Countries

Nuclear Generating Capacity
(Total – 368,496 Mwe)



Electricity Generation

Nuclear Share (%) - 2004



Longer Term Prospects

- China
- Finland
- France
- India
- Japan
- Russian Federation
- South Korea
- Canada (?)
- United States (?)

Reactors Under Construction

(March 2006)

27 Reactors

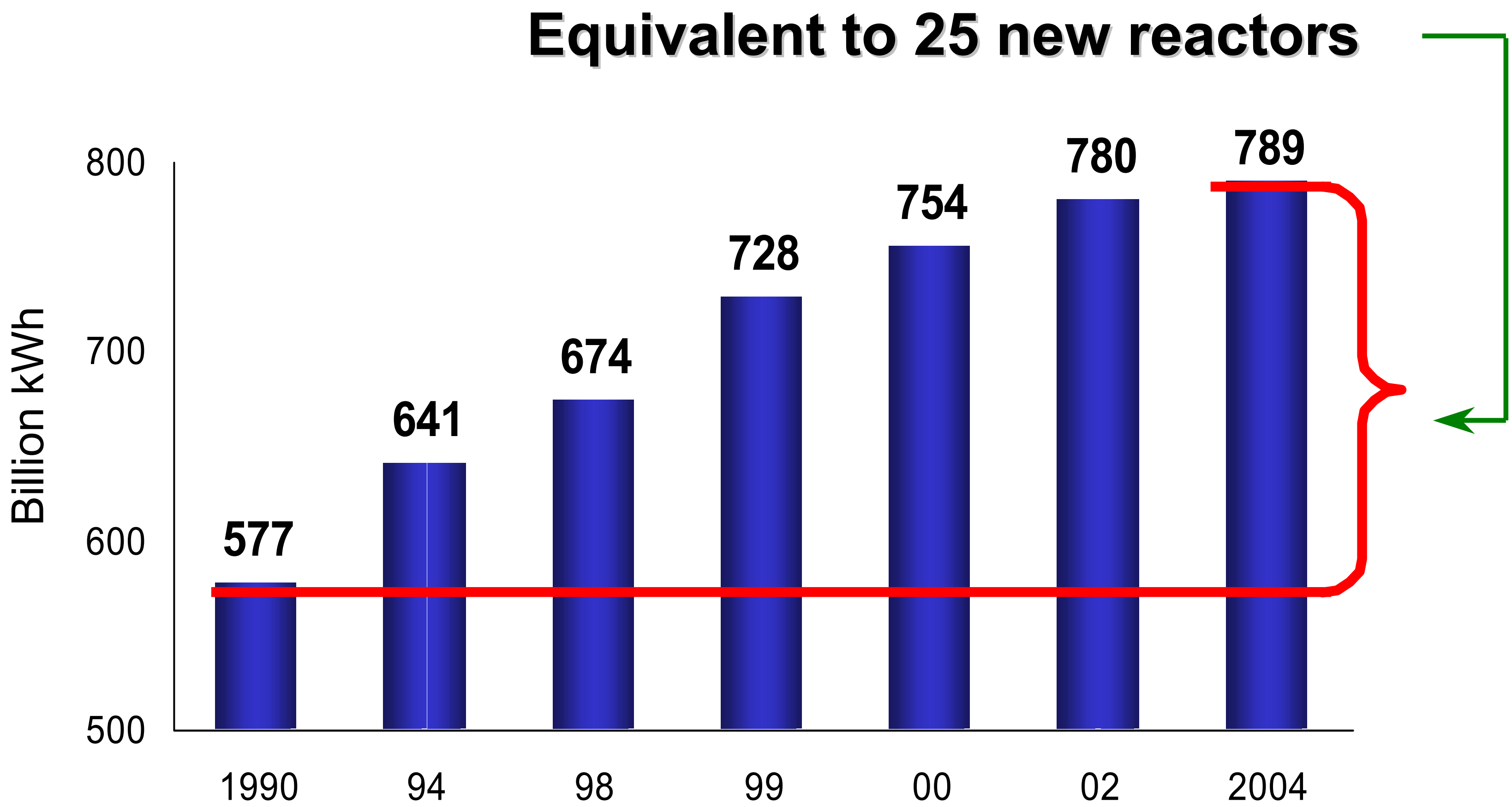
21,361 Mwe

11 Countries

United States

- Capacity Factors
- Operating License Extensions
- Early Site Licensing Program
- New Build Consortia
- Energy Policy Act of 2005
- Browns Ferry Restart

US Nuclear Growth Since 1990



United States

- Nine companies, consortia or joint ventures with “firm” plans for 12-15 new nuclear power plants (no orders formalized)
- Expected commercial operations beginning 2014-2015

China

- Nine operating reactors (6587 Mwe)
- Two reactors under construction (1900 Mwe)
- Eight reactors planned (8000 Mwe)
- Nineteen reactors proposed (15,000 Mwe)

India

- Fifteen operating reactors (2993 Mwe)
- Eight reactors under construction (3638 Mwe)
- Twenty-four reactors proposed (13,160 Mwe)

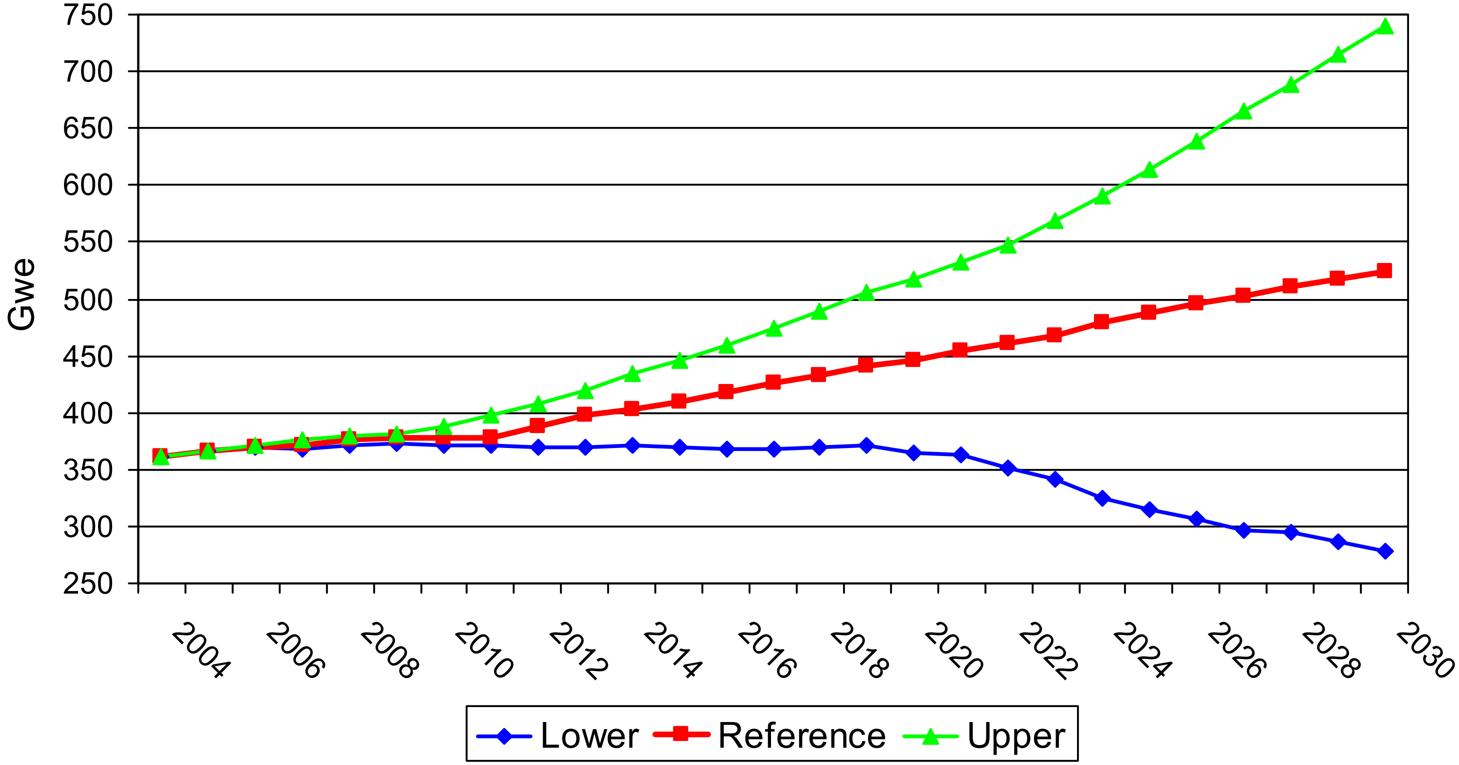
Russian Federation

- Thirty-one operating reactors (21,743 Mwe)
- Four reactors under construction (3600 Mwe)
- One reactor planned (925 Mwe)
- Eight reactors proposed (9,375 Mwe)
- Developing plan for 40 new reactors by 2030

Nuclear “Phase Out” Programs

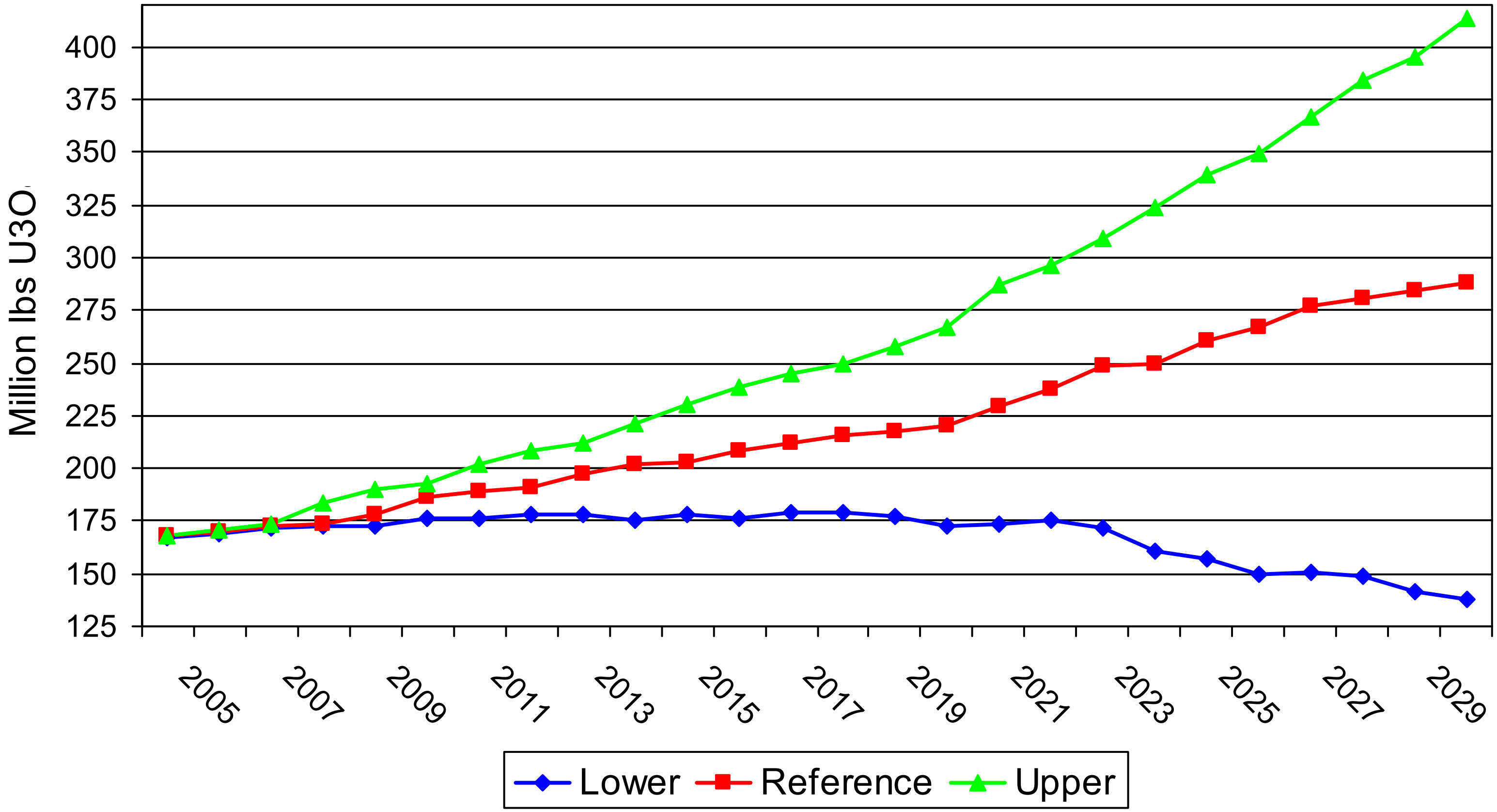
- Belgium
- Germany
- Sweden
- United Kingdom
  - (generation replacement)

World Nuclear Capacity Forecast
(World Nuclear Association - 9/05)



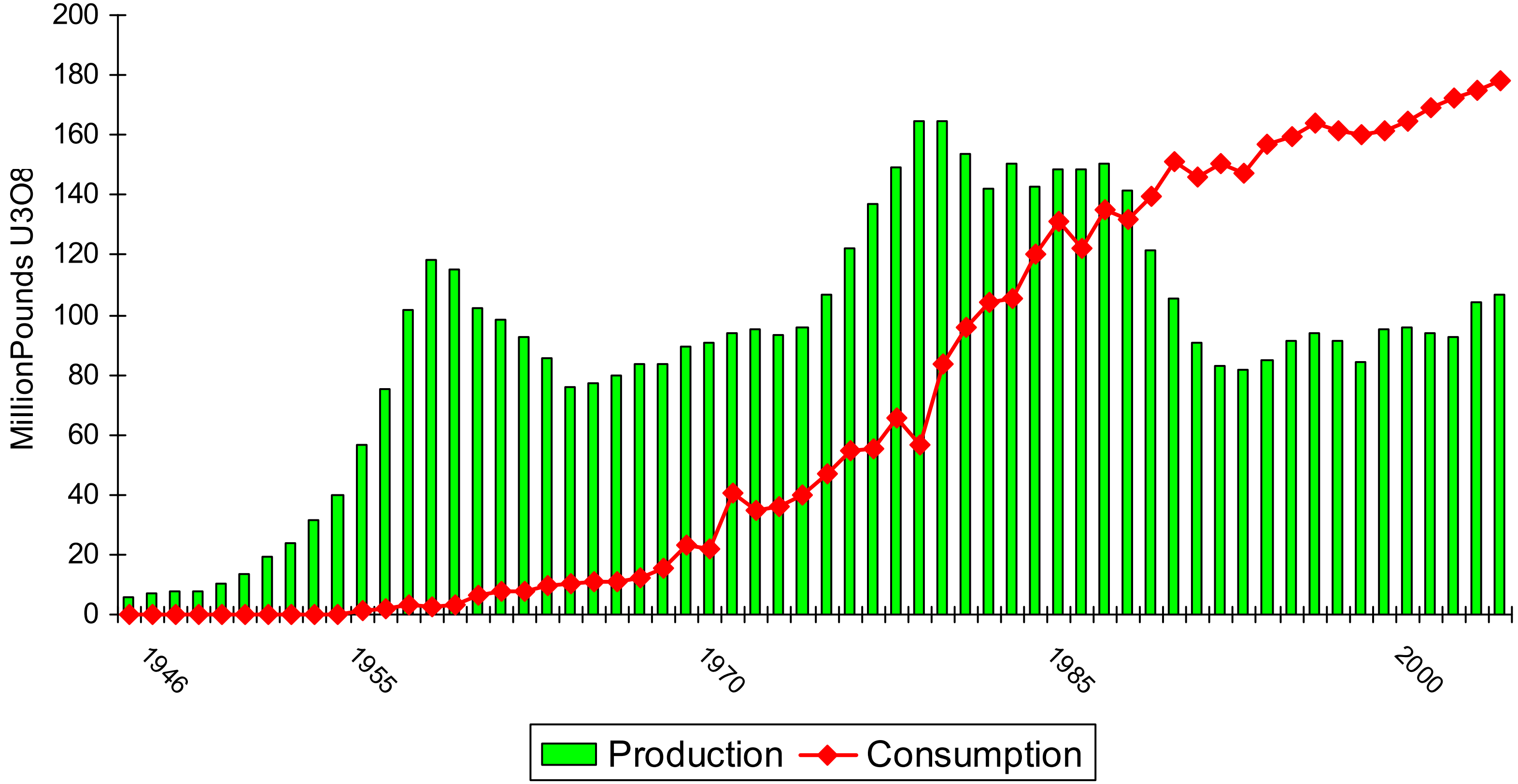
World Uranium Requirements

(World Nuclear Association - 9/05)



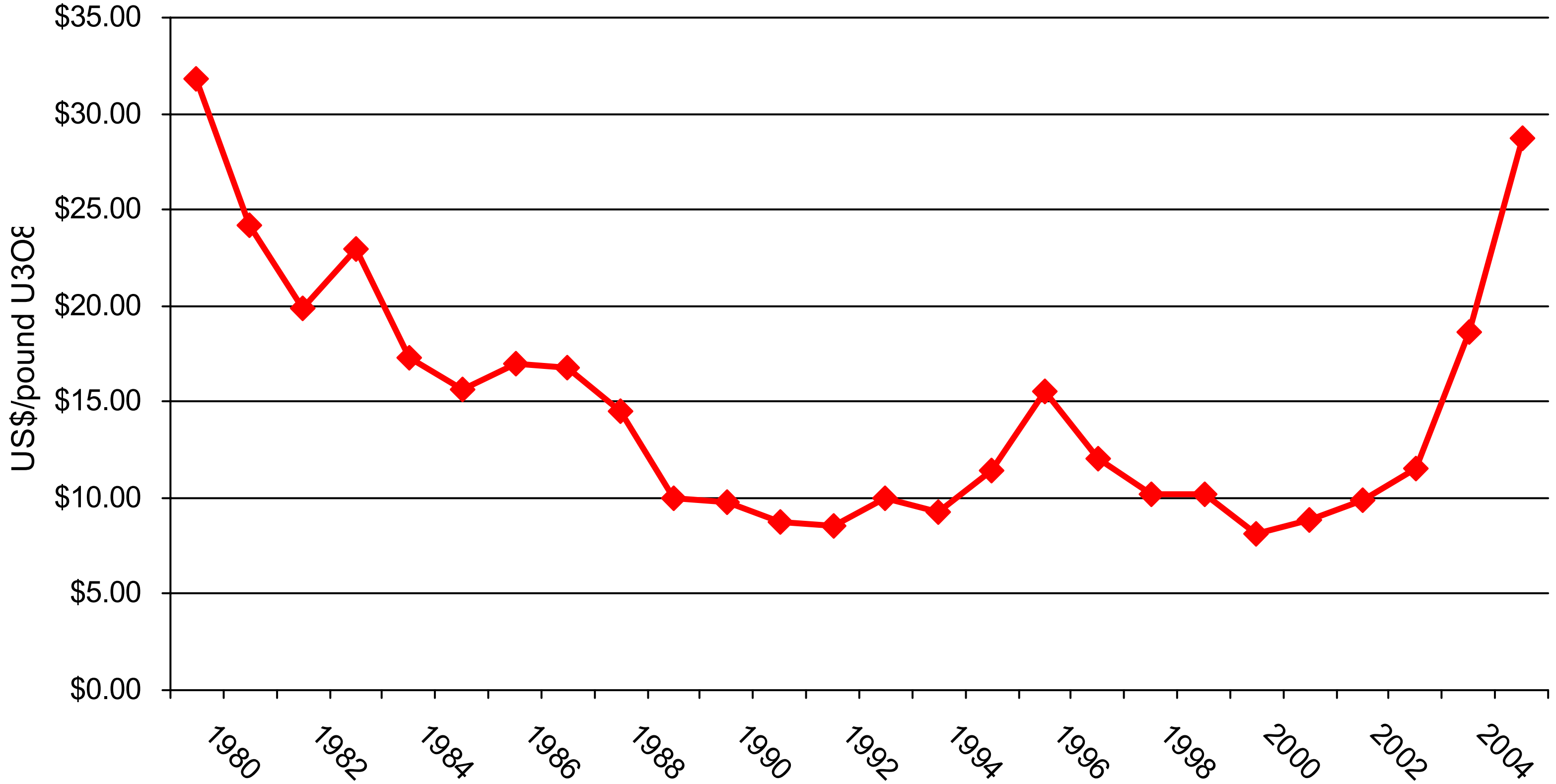
International Uranium Market

World Uranium Production and Consumption
1946-2005



Spot Uranium Price

(annual average)



Uranium - Secondary Sources

"Already Mined" / "Above Ground"

Secondary Uranium Sources

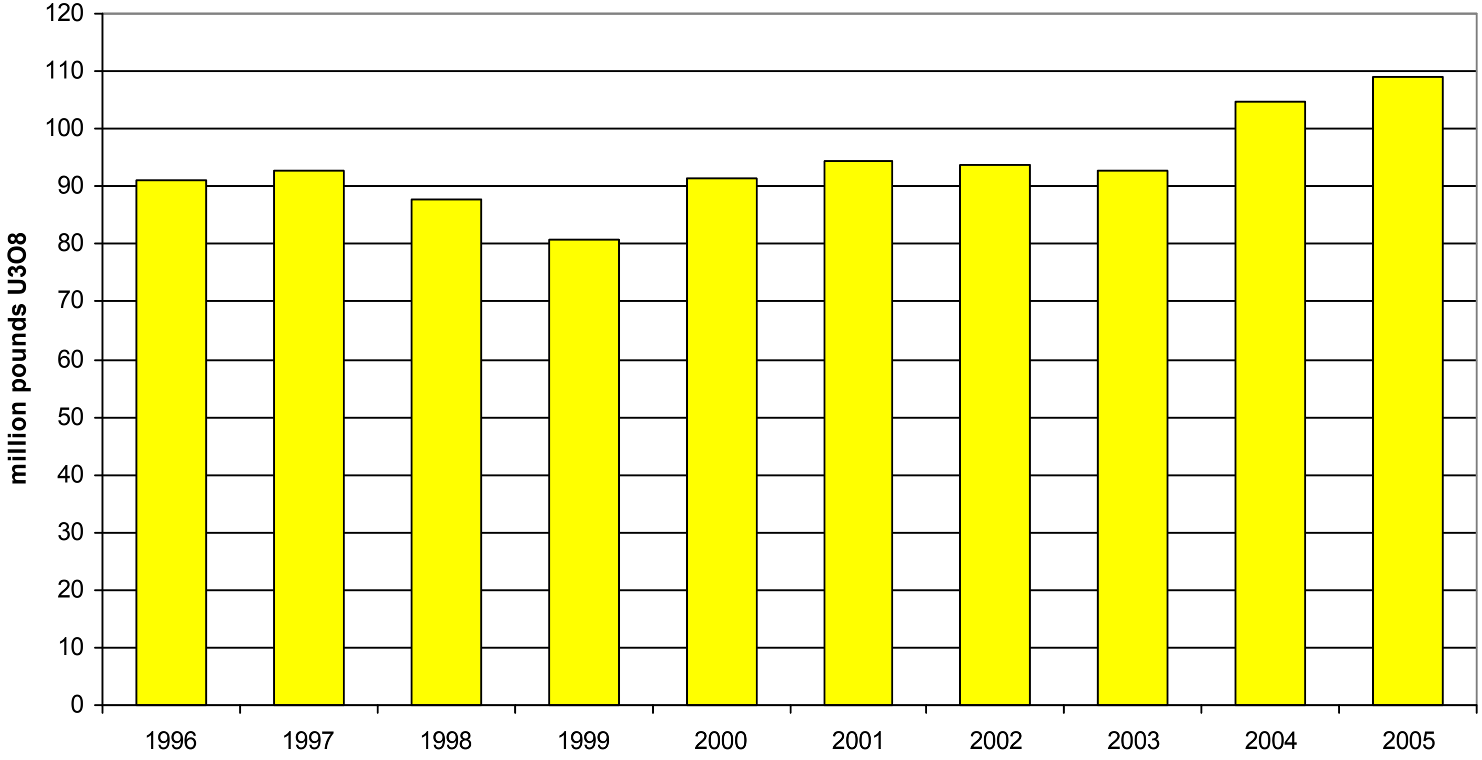
- U.S.-Russian Highly Enriched Uranium Program (1994-2013)
- U.S. Department of Energy Inventory
- Re-enrichment of Depleted UF_6
- Mixed Oxide (MOX) / Reprocessed U

U.S. - Russia Highly Enriched Uranium Program

- 500 Metric Tons of Russian HEU (>90 % U^{235})
- Down-Blended to Commercial Fuel Grade (4.95 % U^{235})
- Contains 360-400 Million Pounds U_3O_8
- Deliveries continue through 2013
- Status - 269 Metric Tons HEU processed (equivalent to 10,746 nuclear warheads)

Primary Uranium Production

Global Uranium Production
1996-2005

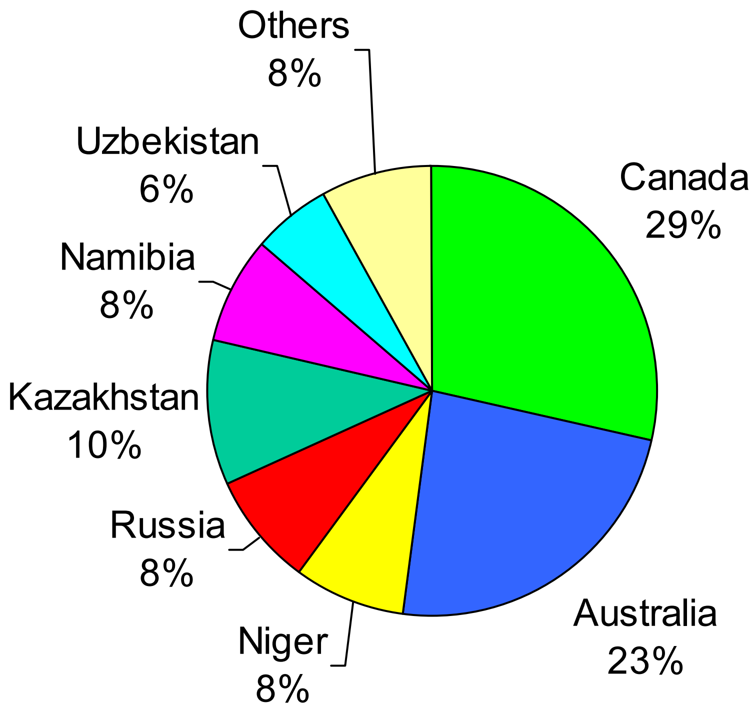


Natural Uranium Production - 2005

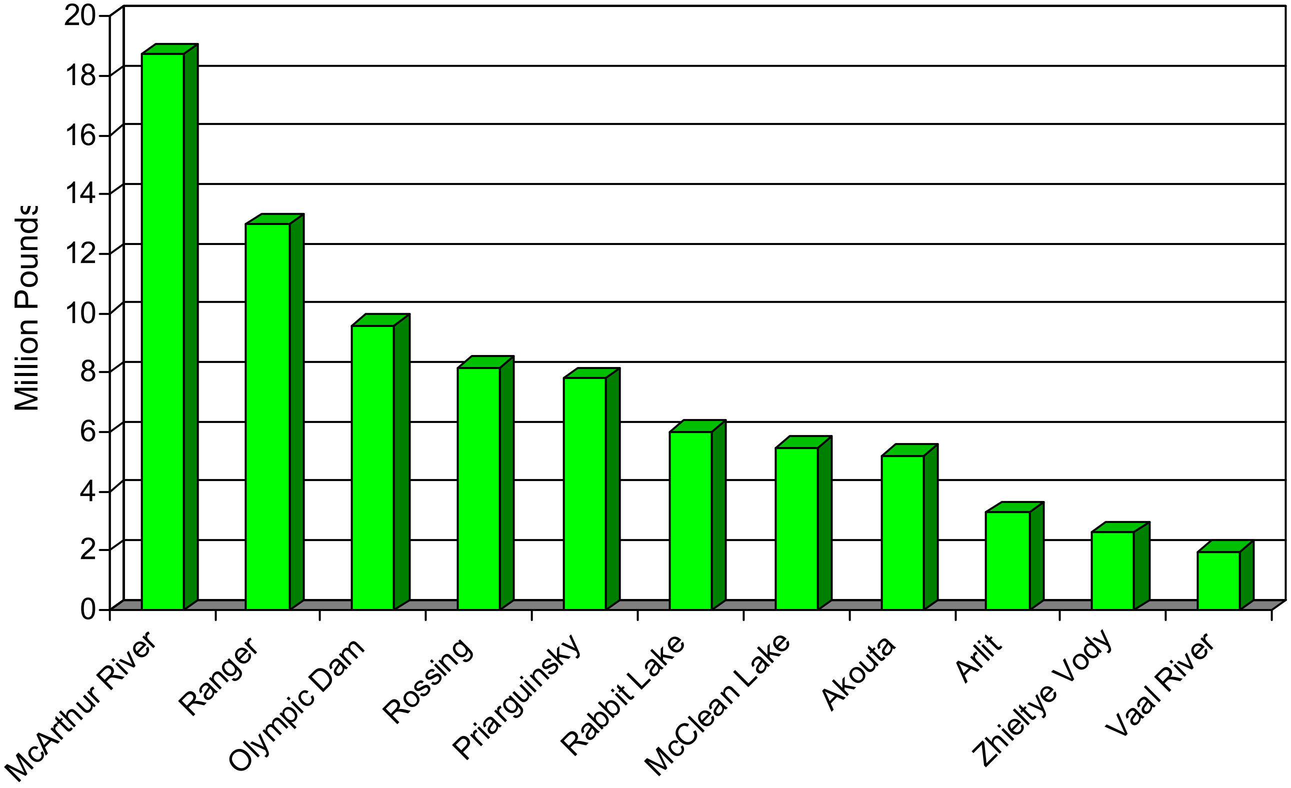
- Total world production – 109.1 million pounds U_3O_8
- Top six countries produced more than 85%
- Canada and Australia produced more than 50% of world total

Uranium Production - 2005

(Total – 109.1 million lbs U_3O_8)



World’s Largest Uranium Mines
2005

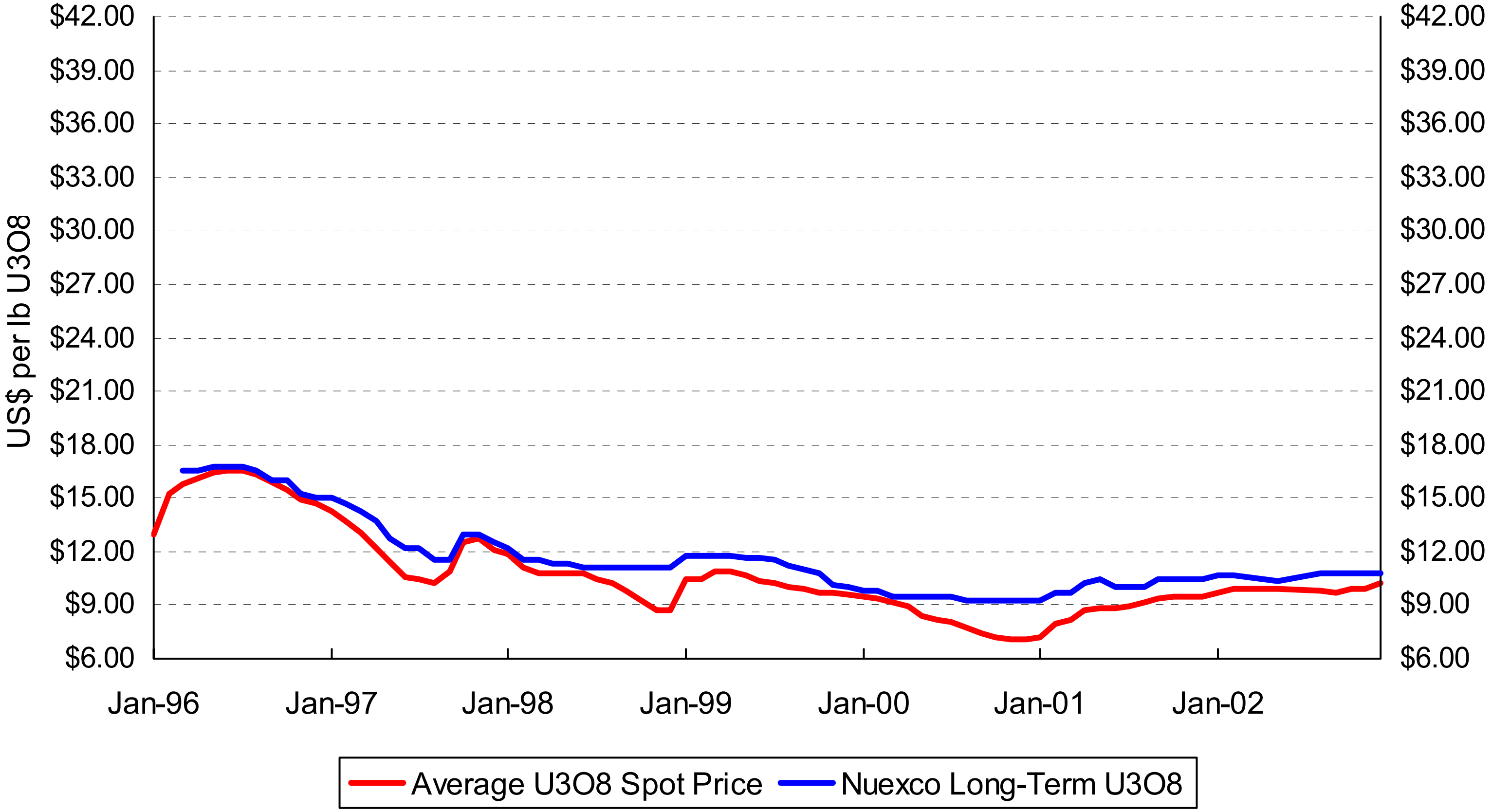


Existing Uranium Producers

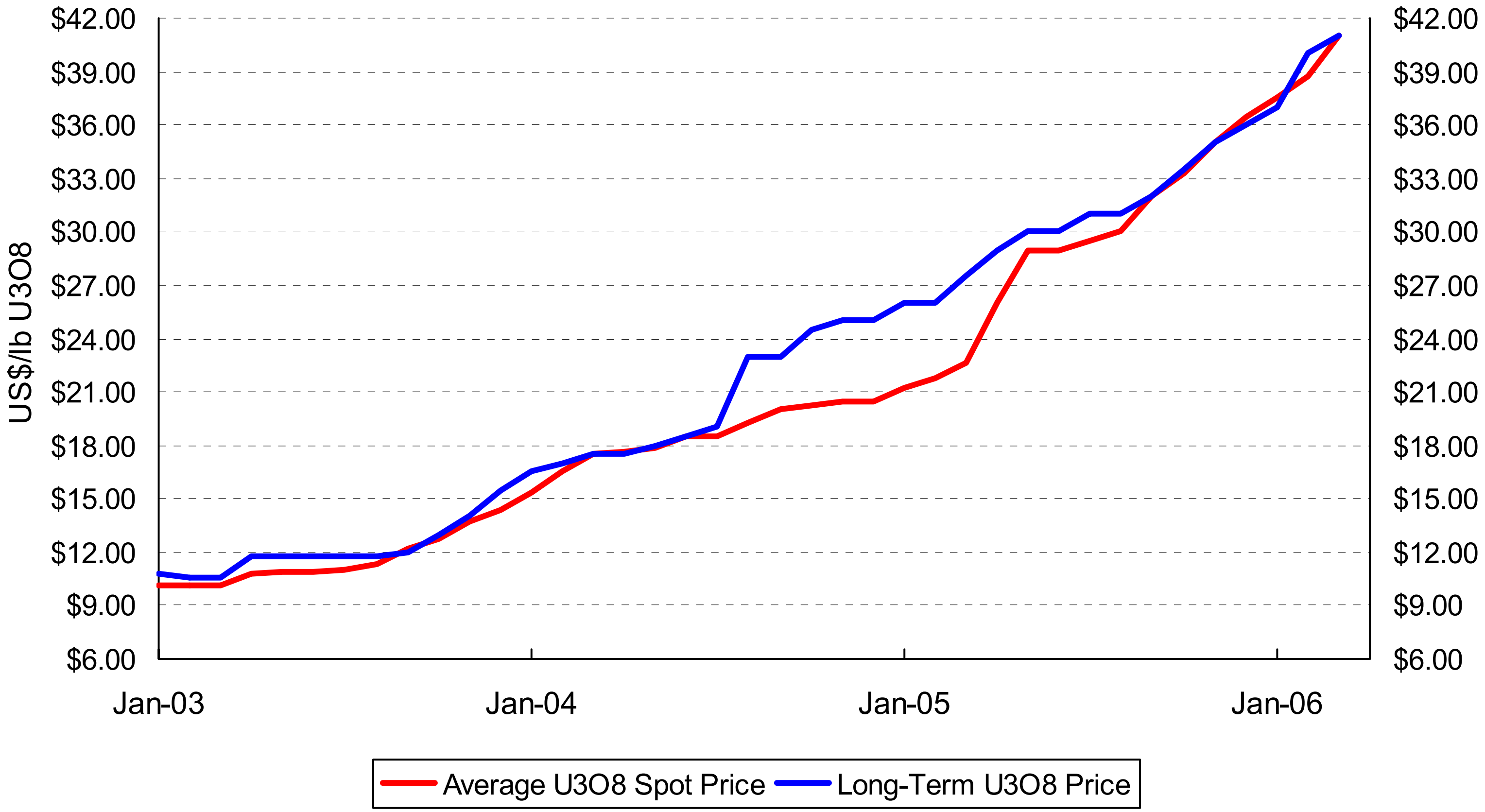
- Cameco Corporation
- AREVA/COGEMA
- Rio Tinto Ltd
- BHP-Billiton
- AngloGold-Ashanti
- KazAtomProm (Kazakhstan)
- TVEL (Russian Federation)
- Navoi (Uzbekistan)

Uranium Prices

Uranium Price Trend
1996 - 2002

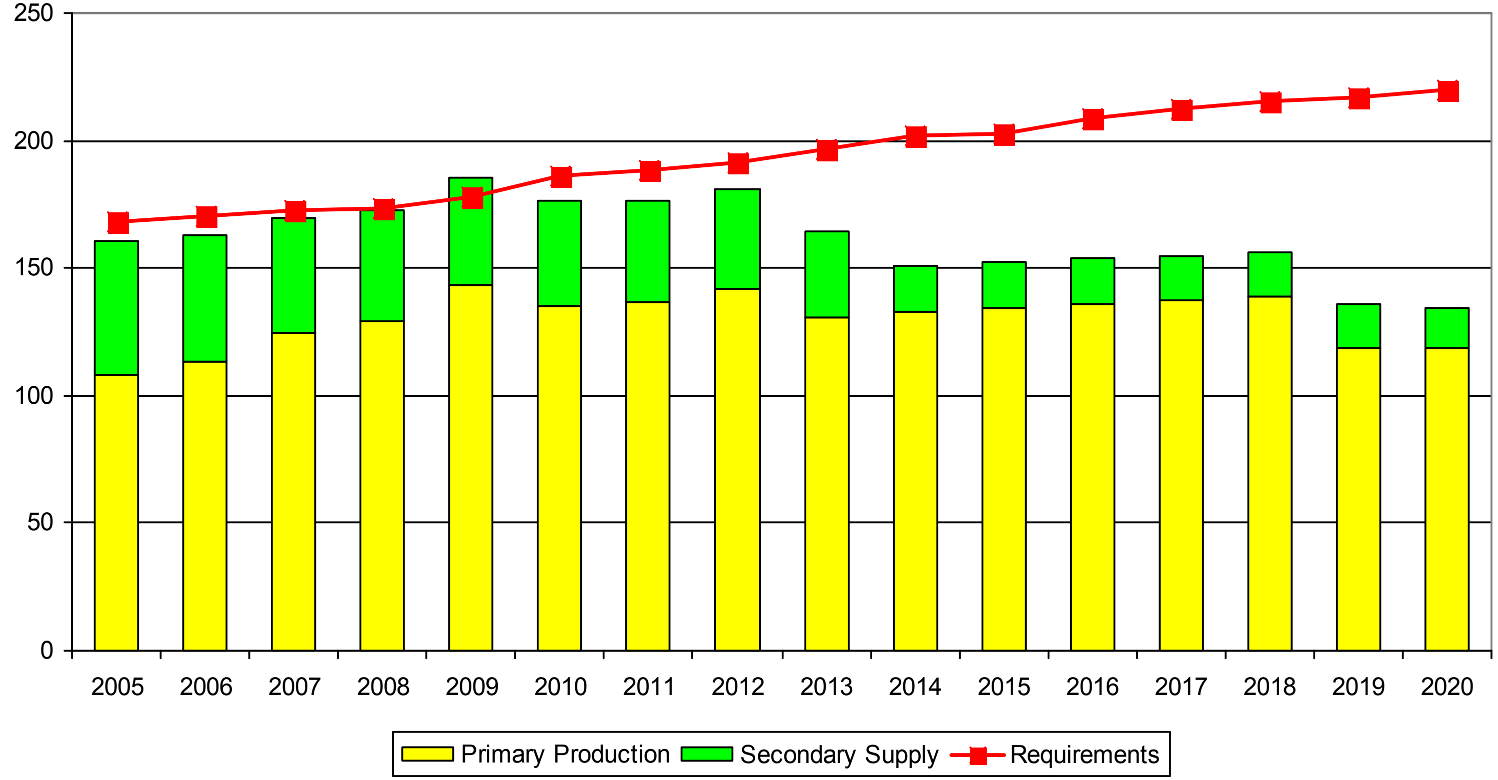


Uranium Price Trend
2003 - Present



Uranium Market Balance

World Uranium Market Balance



Uranium Price Trend

- Recent uranium price increase caught the nuclear fuel industry by “surprise” although early warning signs abounded
- Characterized by some as “market failure”
- Current term price reported as US$41.00/lb
- Uranium spot price now exceeds US$41.00/lb; Expect US$50/lb in 2007
- Forecasts of US$55.00/lb in 2008 and US$60.00/lb by 2009

Human Resources

- Wall Street Journal article
  (April 11, 2006)
  "Aging Work Force Poses Nuclear-Power Challenge"
- Potentially severe shortage:
  - Nuclear engineers/reactor operators
  - Uranium geologists/mining engineers/metallurgists
  - Uranium market analysts

Conclusions / Observations

- Nuclear power will continue to expand globally
- Uranium market continues to adjust to changes in fundamental demand and supply forces
- Resultant price effects underscore continuing imbalance especially in the term market
- Uranium market instability can be expected for the foreseeable future